II. Listing of Claims

1. (Currently Amended): A vehicle impact sensing system for detecting vehicular impacts causing structural elements of a vehicle to deform, the vehicle impact sensing system comprising:

a plurality of bend sensitive resistance elements longitudinally spaced along a an elongated structural element of said vehicle, wherein each of the plurality of bend sensitive resistance elements are capable of generating an independent resistance output signal, the bend sensitive resistance elements each have a strip of conductive ink containing a plurality of cracks along a surface thereof,

at least one passive restraint disposed within said vehicle, and

a controller in independent electrical communication with each of the plurality of bend sensitive resistance elements, said controller for ~~being capable of~~ detecting changes in each of the independent resistance output signals and based on the detected change in the independent resistance output signals of each of said sensor elements determine the location of the impact along the structural element.

2. (Cancelled)

3. (Cancelled):

4. (Original): The vehicle impact sensing system of claim 1 wherein said structural element of said vehicle is a structural reinforcement beam of a door of said vehicle.

5. (Original): The vehicle impact sensing system of claim 1 wherein said structural element of said vehicle is a bumper of said vehicle.

6. (Original): The vehicle impact sensing system of claim 1 wherein said at least one passive restraint is a side airbag.

7. (Original): The vehicle impact sensing system of claim 1 wherein said at least one passive restraint is a pedestrian airbag.

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8. (Currently Amended): A vehicle impact sensing system for detecting vehicular impacts causing structural elements of a vehicle to deform, the vehicle impact sensing system comprising:

a plurality of deformation sensor elements horizontally and longitudinally spaced along a structural element of said vehicle, each of said plurality of sensor elements being capable of generating a variable output signal;

at least one deployable restraint disposed within said vehicle; and

a controller in electrical communication with said plurality of deformation sensor elements and said at least one deployable restraint, said controller ~~being capable of~~ for detecting changes in said variable output signal of each of said sensor elements, and based on the detected change in the variable output signal of each of said sensor elements determine the location of the impact along the structural element.

9. (Cancelled)

10. (Currently Amended): The vehicle impact sensing system of claim 8 wherein said variable output signal of each of said deformation sensor elements is indicative of a resistance of said deformation sensor element.

11. (Cancelled)

12. (Cancelled)

13. (Original): The vehicle impact sensing system of claim 3 wherein said structural element of said vehicle is a structural reinforcement beam of a door of said vehicle.

14. (Original): The vehicle impact sensing system of claim 3 wherein said structural element of said vehicle is a bumper of said vehicle.

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15. (Currently Amended): A vehicle impact sensing system for detecting vehicular impacts causing structural elements of a vehicle to deform, the vehicle impact sensing system comprising:

a plurality of deformation sensor elements longitudinally spaced along an elongated structural element of said vehicle, each of said plurality of sensor elements being capable of generating a variable output signal;

at least one passive restraint disposed within said vehicle;

at least one accelerometer; and

a controller in independent electrical communication with each of said plurality of deformation sensor elements, said accelerometer and said at least one deployable restraint, said controller for ~~being capable of~~ detecting changes in each of said variable output signals and based on the detected change in the variable output signal of each of said sensor elements determine the location of the impact along the structural element and deploying said at least one passive restraint.

16. (Previously Presented): The vehicle impact sensing system of claim 15 wherein said at least one accelerometer is oriented to detect acceleration in a longitudinal direction of said vehicle.

17. (Previously Presented): The vehicle impact sensing system of claim 15 wherein said at least one accelerometer is oriented to detect acceleration in a lateral direction of said vehicle.

18. (Original): The vehicle impact sensing system of claim 15 wherein said at least one passive restraint is a side airbag.

19. (Original): The vehicle impact sensing system of claim 15 wherein said at least one passive restraint is a front airbag.

20. (Original): The vehicle impact sensing system of claim 15 wherein said at least one passive restraint is a pedestrian airbag.

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